

THE MEDICAL FORTNIGHTLY

Vol. XXIV

ST. LOUIS, MAY 10, 1906.

No. 9

Papers for the original department must be contributed exclusively to this magazine, and should be in hand at least one month in advance. French and German articles will be translated free of charge, if accepted.

A liberal number of extra copies will be furnished authors, and reprints may be obtained at cost, if request accompanies the proof.

Engravings from photographs or pen drawings will be furnished when necessary to elucidate the text. Rejected manuscript will be returned if stamps are enclosed for this purpose.

COLLABORATORS.

ALBERT ABRAMS, M. D., San Francisco.
M. V. BALL, M. D., Warren, Pa.
FRANK BILLINGS, M. D., Chicago, Ill.
CHARLES W. BURR, M. D., Philadelphia.
C. G. CHADDOCK, M. D., St. Louis, Mo.
S. SOLIS COHEN, M. D., Philadelphia, Pa.
ARCHIBALD CHURCH, M. D., Chicago.
N. S. DAVIS, M. D., Chicago.
ARTHUR R. EDWARDS, M. D., Chicago, Ill.
FRANK R. FRY, M. D., St. Louis.
Mr. REGINALD HARRISON, London, England.
RICHARD T. HEWLETT, M. D., London, England.
J. N. HALL, M. D., Denver.
HOBART A. HARE, M. D., Philadelphia.
CHARLES JEWETT, M. D., Brooklyn.
THOMAS LINN, M. D., Nice, France.
FRANKLIN H. MARTIN, M. D., Chicago.
E. E. MONTGOMERY, M. D., Philadelphia.
NICHOLAS SENN, M. D., Chicago.
FERD C. VALENTINE, M. D., New York.
EDWIN WALKER, M. D., Evansville, Ind.
REYNOLD W. WILCOX, M. D., New York.
H. M. WHELPLEY, M. D., St. Louis.
WM. H. WILDER, M. D., Chicago, Ill.

LEADING ARTICLES

LYMPHOID HYPERTROPHY IN THE PHARYNGEAL VAULT.*

W. W. BULETTE, M. D.

PUEBLO, COLO.

Oculist and Laryngologist to Mo. Pac. R. R. Co., Colorado & Southern R. R. Co., Colorado State Insane Asylum, Member American Medical Association, Medical Society of the Missouri Valley, American L. R. & O. Society, American Academy Ophthalmology and Oto-Laryngology, etc.

THIS pathologic condition is very common, and is so far reaching in its results, upon the general nutrition of children and young adults, that the writer wishes to emphasize the importance of early diagnosis, and treatment of the morbid process, as he believes it responsible for many of the nervous, and nutritive disturbances of the young. We all know, that much has been written on this subject in the past fifteen or twenty years, yet I feel that many physicians in general practice do not fully recognize the importance of the abnormal condition, and I fear too often, advise parents that the trouble is "one of no consequence," and their children "will grow out of it" or something to that effect. Such advice, in my humble judgment, is little less than criminal. The physician who assists at the infant's birth and prescribes for it

through early life, should be especially able to recognize this abnormality.

Lymphoid hypertrophy in the pharyngeal vault, is a familiar condition known as hypertrophy of the third, pharyngeal or Luschka's tonsil, and adenoid vegetations. According to my records, I find this diseased condition in 80% of all cases consulting me from infancy to eighteen years of age, in Colorado, and whether the trouble is more common in the Rocky Mountain region, than other sections of the United States, I do not know.

Both sexes are about equally affected; it may be congenital, and appears to be hereditary in some families, although the occurrence of several cases of the disease in the same family, could be referable to the same diathesis or same exciting causes.

It is said that the trouble is never seen in the negro. Dr. Calhoun, of Georgia, in a personal letter to the writer states, that "he had never seen hypertrophy of the pharyngeal tonsil in the negro, and this same opinion was held by many laryngologists of the South." I have seen two cases in negroes in Pueblo in the past seven years; whether these two children were of pure negro blood, I am not able to say.

Many constitutional diseases predispose to the affection, such as scrofula, syphilis, tuberculosis and kindred diseases. It has often been an interesting question with me, whether or not, tuberculous ancestry, might not account for so many cases being seen in this particular section of country.

Most authors agree, that the larger percentage of cases of this trouble are seen in children from four to ten years of age; the writer has seen cases in infants at the breast; and in individuals at twenty-five years of age.

It cannot be disputed that there exists in many children a tendency to lymphatic inflammation, a condition known as "lymphatism," or if you please, a lymphatic diathesis, in which there is a tendency for all lymphoid tissues of the body, to take on an overgrowth at an early age, the lymphoid deposits becoming particularly manifest in the naso-pharynx and pharynx.

Such children contract the contagious diseases very readily, and indeed when affected with any acute disease, the type of the given disease, is much more malignant and intense in degree, than is seen in children who do not have the tendency to lymphoid inflammation.

*Read before the Pueblo County Medical Society.

The most striking features in the symptomatology of hypertrophy in the pharyngeal vault, in a well marked case, is the peculiar facial expression, the dull, listless, stupid, vacant stare, the parted lips, open mouth, prominent eyeballs, with the inner canthi drawn down; often accompanying conjunctivitis with lachrymation, elevated eyebrows, the skin of the forehead is often corrugated, obliteration of the normal lines of expression of the face, mouth-breathing, a noisy respiration, snoring and lack of resonance of the voice, thickness of speech, the child talks as though it has something in its mouth, or the voice has a peculiar "dead" quality.

There is generally always a profuse nasal discharge, often excoriations or eczematous erosions about the alae of the nose, due to irritating mucopurulent secretion, the alae often looked pinched, and frequently the nose is abnormally broad across the ridge, the child is almost constantly sniffing, often there is cough, night terrors, sense of choking; the little sufferer will often cry out in sleep and start up in its couch; often too there is nocturnal incontinence of urine, frequently recurring earaches, and invariably "catching cold" at every change of the weather.

By impairment of the functions, there is deficient oxygenation of the blood, with resulting carbon di-oxide poisoning, impaired nutrition, and anemic conditions, from which recovery is often prolonged after normal respiration has been fully established.

As the trouble progresses, there is permanent alteration of the voice, laryngeal and bronchial catarrhs result, and there may be thoracic deformity; the mental and physical growth is seriously impaired, the children are inattentive, absent minded, and slow in their studies; their teachers often say they are dull, and cannot study and keep up with their classes.

Children affected with hypertrophy in the pharyngeal vault, and who do not obtain relief, are sure to fall below their full measure of health and strength, they usually grow up feeble and sickly. The severe forms of this abnormal condition, will surely leave its mark on their whole future existence.

In addition to the serious consequences, which result from this affection, may be mentioned acute and chronic otorrhea, perforation of the membrana tympani, necrosis and ankylosis of the ossicles, permanent deafness, indeed, I may safely say, that it accounts for fully fifty per cent of the cases of deafness which the aurist is called upon to treat.

There is increased liability of subjects of this condition, to infection, as has been seen, and the so-called "colds" are very often the

result of entrance into the system of pathogenic organisms, carried into the air passages by dust, the writer believes also that the frequent so-called "bilious attacks" in children suffering from this disease, are often, nothing more or less, than septic processes due to infection.

Some authors have reported torticollis co-existing with, but cured by removal of the lymphoid hypertrophy, and the same of epileptic seizures and asthma.

How far the presence of such growths, may influence certain errors of refraction of the eyes, together with muscular abnormalities is an interesting question. The writer recently examined the case of a girl of twelve, who had a well marked case of adenoids, and also twenty degrees of esophoria; two months after adenoid operation and correction of refractive error, the esophoria had been reduced to ten degrees.

Also the author operated on a case, for adenoids, about a year ago in which there was a decided convergent strabismus, and following the removal of the growths several weeks, there was great improvement in the squint.

The diagnosis of lymphoid hypertrophy in the pharyngeal vault is easy, from the symptoms and history, in a well marked case, and can be recognized at sight; in tractable children, the growths can be seen by reflected light, with a small rhinoscopic mirror, when the case is not tractable, the diagnosis can easily be made, by passing the forefinger of the left hand behind the soft palate, either seating the patient on a chair or having them stand erect, while the surgeon stands behind the child, with its head against his chest, passing the right hand around the neck, with the forefinger pressing in the cheek between the upper and lower jaw, while the mouth is open.

In this manner the examination can be quickly made without injury to the patient, while at the same time it is firmly held, and during this examination, the whole vault can be quickly explored, and the exact location, and consistency of the growth can be determined. No matter how vicious the child may be, there is absolutely no danger of wounding the surgeon's finger, with the teeth; because the child cannot close the mouth, if the right forefinger is firmly held in above manner.

The examining finger will usually have on it a show of blood upon withdrawal, which is not present if the vault be clear.

The surgeon can also throw a warm antiseptic solution through one anterior naris, with an atomizer or small syringe, and if the nose and naso-pharynx are clear the fluid will

escape through the other nostril and practically with undiminished force.

As has been seen, these growths can be of a malignant, syphilitic or tuberculous nature; so far as their pathological structure is concerned; but in such cases, visible evidence, and the history of the case, will decide their character.

Questions frequently asked by parents are: will the growths do any permanent injury if left alone? and will they return if once removed? To the first, I emphatically answer "Yes," and to the second absolutely "No." The majority of cases with their symptoms so clearly seen, and in general called "catarrh" have usually long since attracted the parents' attention and they will usually consent to operation for removal of the growths.

In the author's opinion there is no operation in nasal or laryngeal surgery attended with happier results than the one for removal of lymphoid hypertrophy from the pharyngeal vault. Physically the child is a new person after a successful operation.

If left alone, there is always great danger of permanent damage to the organs of hearing, with resultant, and practically incurable postnasal catarrh, to say nothing of the multitude of other complications already seen.

After puberty the deposits of lymphatic tissue in the nose and naso-pharynx tend to atrophy, establishing a train of symptoms often as far reaching as hypertrophy of these tissues, and certainly causing diseased conditions of contiguous tissues and organs which are practically incurable.

The immediate dangers, are increased liability to any contagion, diseases caused from impaired vitality of the upper respiratory tract, defective mental and physical development, deformities of the jaws, and defective dental development.

After successful operation, dull intellects brighten, deafness is often relieved in a short time, phonation becomes clear and distinct, and nasal respiration is quickly established.

The treatment of such cases is constitutional, hygienic, local and operative.

All these cases should have careful directions regarding their food, clothing and care of the body, in short, their general hygiene should be rigidly supervised; many require general tonics, alteratives and reconstructives; a very few can be relieved, and often cured, by constitutional treatment, combined with antiseptic sprays to the nares and local application to the post-nasal space, but this applies only to the limited few cases where there is no impairment of hearing; where mouth breathing is not permanent, and where the growths are quite small, and true hy-

pertrophy is not fully established, or where the general symptoms are not well marked; such cases, however, but rarely consult the surgeon.

In well marked cases, the treatment, to insure permanent results is, radical removal, which I prefer to do with the curette, occasionally the forceps, completing the operation with the finger nail of either right or left fore-finger.

The operation is quickly done, after which I pass through the nares several syringefuls of a warm antiseptic solution, to clear the nose of blood, and to assist in stopping hemorrhage, which is always quite free, the patient is then placed in bed, and given a few doses of five to fifteen grains of bromide of sodium, and liquid or semi-liquid food for forty-eight hours; the nostrils being sprayed twice daily with a warm antiseptic solution. The subsequent treatment depends entirely upon the complications which have resulted, from the presence of the abnormal growths.

There is generally, however, several weeks of after treatment, to restore the tissues of the upper respiratory tract to a normal condition.

Caustic acids, and other destructive agents, the galvano-cautery, and the cold snare, have their advocates, for removal of these growths, and I only mention to condemn them.

The subject of general anesthesia is one of great importance, and we have a choice of either ether, chloroform, nitrous oxid, somniform or ethyl bromid; I am fully convinced, from experience, that the subjects of the pathologic condition under consideration, as a rule, take general anesthesia badly, and I feel, that the operation can be done quite as quickly, and successfully with local, as with general anesthesia, as the element of danger in the operation, is in the general anesthesia.

Of course, the operation should be done as aseptically as possible with the patient in best possible physical condition.

MISSOURI VALLEY SPECIAL TO BOSTON.
—Arrangements have been perfected for a superb special train to Boston, to attend the meeting of the American Medical Association, June 5 to 8. Route: Grand Trunk, via Niagara Falls, Toronto, Montreal, Thousand Islands, daylight ride down the St. Lawrence river, returning by rail. One fare, plus \$1, for round trip. This train will run special through from Chicago, and will be made up of Pullman palace sleepers, dining cars, buffet-library and observation cars. For reservations and itinerary address Dr. Chas. Wood Fassett, Secretary, Medical Society of the Missouri Valley, St. Joseph, Mo.

PATHOLOGY AND DIAGNOSIS OF THE LESIONS OF THE SPINAL CORD AND PERIPHERAL NERVES.*

FRANK PARSONS NORBURY, A. M., M. D.

JACKSONVILLE, ILL.

Professor of Nervous and Mental Diseases, Keokuk Medical College, College of Physicians and Surgeons, Keokuk, Ia.; Medical Superintendent, Maplewood Sanitorium.

In order to properly understand the diseases and injuries of the spinal cord and peripheral nerves, it is of the first importance that we have familiarity with the anatomico-physiological features of these special nerve structures. It is not necessary for me to enter into an extended anatomical description of the cord, but I would like to emphasize the importance of certain essentials which aid us when operative treatment is under consideration.

We must remember that irritation and conduction occur by means of the neuron, each one consisting of a nerve cell with its dendrites, of the nerve process (root process, neurite, axis cylinder) arising from the nerve cell and of the terminal splitting of the same (terminal arborization).

In order to insure performance of the functions of the neuron, there must be an intact condition of its anatomical structure. Irritation occurs in the neuron by travelling from the cell to the neurite, and thence to the terminal arborization, and is there transformed to other ganglionic cells, the fibers of which are in intimate contact with the terminal arborization by way of the dendrites of the ganglion cell.

The arrangement of the neurons in tracts serves to systematize these anatomical elements and in the study of their physiological function, diagnosis has been greatly advanced in recent years. The motor tract, the sensory tract, the reflex tracts, thus studied, have been compiled in tables and illustrated in diagrams, so that with their aid, localization diagnosis has been perfected to the extent of what we may now call it, the science of localization. Of course, it has not reached an absolute, unalterable degree of perfection for there yet remains much clinical and physiological investigation to establish the perfect science of localization. However, facts have accumulated regarding the localization of cord lesions sufficient to meet all surgical requirements. There are certain elementary facts which we must always remember, and which even in their simplicity bear repetition, frequently. I allude to:

First.—The fact that the cord terminates opposite the second lumbar vertebra. Second.—That the spinal nerves do not leave the cord immediately in line with their origin, but extend downwards and have their exit through vertebrae sometimes remotely from their origin, this distance increasing as we descend the cord from the cervical vertebra. The lumbar and sacral nerves in their formation of the cauda equina having quite a distance to go before having their exit through their foramina. Third.—That as the spinous processes are taken as guides in making incisions, it is necessary to remember that the spines of the vertebrae do not correspond to the level of the bodies and that their relationship between nerve roots and spinous processes varies the entire length of the spinal column; thus, at the cervical region, the nerve roots are almost opposite the cervical nerves, while in the dorsal region the spinous process of the sixth vertebra is opposite the ninth dorsal nerve root. Gowers' diagram is of help in understanding these facts. Fourth.—When root symptoms are being considered, it is necessary to remember, that one root may give evidence of irritation in several different nerves and destruction of a root will cause atrophy of muscles to which these different nerves originating in this root are distributed.

In considering diseases of the peripheral nerves this fact of importance, as there is a difference between peripheral nerve distribution and root distribution (to facilitate in localization), in accordance with the above going statements, tables and diagrams have been prepared showing accurately the root and peripheral distributions.

Pathology.—The gross and special pathology of lesions of the cord cannot be discussed in their fullness, and we must therefore hastily review a few essentials which when understood are sufficient to meet the requirements as we are apt to meet them in surgical practice. It is also necessary to consider the surgical pathology of the vertebra briefly, inasmuch as diseases of the vertebra are responsible for the greater part of surgical interference where the cord is involved. Degenerations, usually secondary, are the most marked pathological changes in the cord. They follow after injury to the cord, from compression or from severance of fibres. In both conditions the fibres are cut off from their cell bodies and degeneration follows, from the point of injury to the peripheral termination of the fibre. For this reason a small lesion in the cord may cause extensive secondary nerve fiber degenerations. Below the lesion in the cord a

*Read before the Illinois State Medical Society at Rock Island, Ill., May 16th, 1905.

descending degeneration occurs and is very extensive near the seat of injury. This degeneration involves systems than the one immediately affected by the injury. Ascending degenerations too may follow injuries to the cord, and may become very extensive. Secondary degenerations may follow compression of the cord by tumors of the vertebra or of membranes of the cord, or from Pott's disease (tuberculous caries of both forms) or from fracture, dislocations or from hemorrhages in the neural canal fracture, or within the cord or from wounds of the cord, especially gunshot and stab wounds. The special pathology of degenerations from diseases of the cord has been exhaustively studied by Collier and Buzzard (*Brain*, Vol. 6, No. 104).

Occasionally certain malformations of the cord call for surgical interference and the pathology of these affections must be understood before undertaking operative measures for their relief. Spinal bifida is the one malformation which is strictly surgical in its treatment, and Dana says, "and then only in meningocele."

Syringomyelia, due to formation of gliomatous tissue in the cord becomes of surgical importance at times and its surgical pathology under such conditions is briefly, the cavity in cord tissue is filled with a fluid which is causing undue pressure symptoms, and Horsley says, "temporary improvement in simple syringomyelia may be obtained by tapping the dilated cavity in the cord." I have seen but one case of syringomyelia and no surgical interference was necessary.

Of diseases of the vertebra which involve the cord, tuberculous caries is the most common. Tuberculosis of the bone usually follows slight contusions in susceptible individuals, and the invasion of the bacilli is where the growth of the bone is greatest near the periosteum and intervertebral substance. The anterior surface just beneath the anterior longitudinal ligament, says Warren (*Surgical Pathology*) is a favorite seat. Here the vessels which run into the bone more or less perpendicularly to the surface, are surrounded with granulation tissue, and the absorption of the bone is therefore greatest at these points. Less frequently, the center of the bone is affected. Two or more foci may exist in each body. The destruction of bone goes on until characteristic deformity occurs and compression of the cord results. Horsley speaks of caries without deformity, and says in the lumbar region that it is perfectly possible for extensive tuberculous caries non-suppurative to occur producing the severest paraplegia, without the slightest deformity of the spine. The cervical region

too seems to be exempt from deformity. I saw one such case. New growths involving the vertebra or the membranes of the cord may cause compressions of the cord. Sarcoma and carcinoma of the bodies of the vertebra and sarcomatous growths arising in the tissues adjacent may invade the neural canal. I have seen five cases (two in males) of secondary carcinoma involving the cord or its roots by compression. All cases have been secondary to carcinoma of the breast.

SURGICAL SPINAL LESIONS.

The surgical spinal lesions are compression of the cord from injuries, from tumors, from caries, from hemorrhage and irritations of the roots of the spinal nerves from new growths, etc. To make a diagnosis: first, as to the nature of the lesion; and second, as to its localization, is at times easy, while in other cases, as Cushing aptly expresses it, "There are no clinical puzzles more interesting to disentangle, none more confusing when left in a snarl, than those connected with the segmental localization of a cord lesion, the determination from disturbances of function of its transverse extent, a decision as to the recoverability of the injured tracts, and a knowledge of just where the intact arches of the spinal vertebra, must be entered in order to expose the diseased focus."

In order to solve these problems a complete neurological diagnosis is necessary, certain symptom groups being studied in routine order, viz.: First.—Motor, as shown in paralysis in some form, varying from involvement of one muscular group of muscles to complete loss of power in one or more limbs. Motor irritations or excitations, as shown, is spastic states, rigidity, contractures, spasms, etc. The differential study of paralysis or irritations cannot be considered here. The second group of symptoms, the sensory, require great care in their differentiation and involve consideration of tactile sense, temperature, pain and muscle sense, etc., and the varied irritations of nerve roots, and later destruction of these roots, etc., paresthesia, neuralgic pains, ataxia and later anesthesia, analgesia, thermoanesthesia, etc. In the study of sensory localization much patience and skill will be required to obtain satisfactory results, and as the symptoms are very important, it is necessary to get full notes and follow carefully a definite routine in examination. The diagrams of Sherrington, of Starr, will be of great aid in differential study. In the third important symptom group are considered the reflexes. The condition of the reflexes is an index of diseases of the cord. They are therefore to be given their true place in diagnosis.

Surgical Interference.—Of the indications for surgical interference I would say that in fractures, dislocations, etc., of the spine, the tendency of the times is to advocate early operation. Walton (*Journal of Nervous and Mental Disease*, Jan., 1902), of Boston, one of the most practical of our eminent American neurologists, is an earnest advocate of early interference. He says, "That we have no symptoms from which we can assert at the outset that the cord is crushed beyond the possibility of a certain degree of repair, and that early operation in all doubtful cases will not only accomplish all that late operation will do for these cases, but it will be performed to better advantage before reparative processes with adhesion and callus have appeared. Total relaxed paralysis, anesthesia of abrupt demarcation, total loss of reflexes, retention, priapism, and tympanites, if persistent, Walton believes point to complete and incurable transverse lesion; but, the onset of such symptoms does not preclude a certain degree, at least, of restoration of function. The prognosis without operation is grave, but this is hardly a sufficient argument, as it is also grave with operation."

While the results of operation are not brilliant, he thinks they are sufficiently encouraging to warrant us in making the practice more general, and in most cases it will be wise to operate within a few days of injury; but a delay of some hours is advisable, partly on account of shock, and partly to eliminate the diagnosis of simple distortion. Instead of selecting the occasional case for operation, we should, he thinks, rather select the occasional case in which it is contraindicated (the patient with great displacement of the vertebrae, the patient with high and rising temperature, the patient plainly moribund, the patient still under profound shock). The dura should be opened freely; it need not be sutured; drainage is not necessary.

C. L. Dana, in discussing this paper, remarked that in his experience, operation is practically safe, and that the spinal column is not injured by the operation.

Cushing (*Cleveland Medical Journal*, Jan., 1905) in speaking of the indications for surgical intervention in cases of spinal traumatism said, "For the sake of having some tangible and definite rule for conduct, I have always divided these cases into three categories: (1) Those in which an operation is contraindicated because it can do no good and may increase the damage already done. To this group belongs the traumatic hematomyelia, a not uncommon lesion, one easily recognized from its symptoms alone and without radiographic aid, and one which, up

to a certain point, is recoverable by natural processes of repair. (2) Of these cases we had twelve. Cases of fracture-dislocation, which are relatively common, and which, so far as we know, are beyond all hope of restoration, owing to the complete transverse nature of the lesion. In these, operation can do no harm, but it is an unjustifiable ordeal for both patient and operator. (3) Cases of partial injury to the cord with symptoms which are increased and perpetuated by pressure from a foreign body, such as a fragment of bone or a bullet, form a group in which an operation undoubtedly will do good, provided it is so conducted as not to aggravate, by further traumatism, the already existing symptoms. All of these conditions are commonly regarded as surgical, and I have mentioned them for the sake of emphasizing certain limitations which should be recognized. Only in the long standing cases, therefore, which present undoubted evidences of transverse destruction, no matter whether the lesion in its transverse extent originally was or was not complete, is an operation to be considered utterly futile.

REGENERATION OF THE CORD.

The possible regeneration of the cord after severance by accident is one of the new features in cord surgery, brought into prominence by the remarkable case of Stewart (*Philadelphia Medical Journal*, June 17, 1903) where by gunshot through the spinal cord, a complete transverse lesion occurred. By operation three hours after the accident, the ends of the cord, which had been separated were, with difficulty united by sutures. Sixteen months later, functions of the cord were restored to the extent, that she was able to perform flexion of the toes, thighs, extend the toes and rotate the thighs; stand with support by a chair. The bowel and urinary functions were performed with little inconvenience; menstruation was regular; sensations of touch, temperature, pain and position were present, but temperature sense was impaired. There was no reaction of degeneration; no trophic changes of skin or nails.

This remarkable case has not been explained; it is one of the most unique and extraordinary experiences of surgery. It leaves open the question of physiological restoration of function and adds to the many unexplained experiences of neurological practice.

PERIPHERAL NERVE SURGERY.

The recent studies of nerve anastomosis have opened up a most promising field in neurological surgery. It is in this department of special surgery that extended experimental work is meeting with such favorable

results. The work of Cushing, of Johns Hopkins Hospital; of Spiller and Frazier, of the University of Pennsylvania in this country; of Kilvington of the University of Melbourne; of Manasse of Munk's laboratory in Berlin; of Kennedy in Glasgow, and other workers in France and Italy, has proven the practicability and possibility of nerve anastomosis so that grafting of a paralyzed nerve upon an intact nerve will result in the return of function of the paralyzed nerve.

In order to better understand the principles underlying this practice, let me briefly state that according to the present stage of our knowledge, the various nerve fibres which run in a nerve trunk are grouped as follows, according to Kilvington: (1) Motor nerves proceeding direct from the central nervous system as skeletal muscles. (2) Pre-ganglionic fibres arising in the central nervous system and ending in nerve cells placed peripherally (sympathetic ganglion cells, mesenteric ganglion cells and those of the heart and salivary glands, etc.). (3) Post-ganglionic fibers arising in these peripheral ganglia and ending in smooth muscle and glandular tissue. (4) Afferent fibres arising in the peripheral sensory apparatus and proceeding to the central nervous system; with these must be classified for the present, the vasodilator nerves.

Now, it is a fact that in nerve crossing that all of these groups may be embodied in one nerve, but it is the motor fibres which are most in evidence in the experimental work. The experiments have been complete, and it would be an interesting and profitable twenty minutes to devote one paper before this society on this subject alone. I can only mention the latest publication along this line, the conclusions of the experiments of Kilvington (*British Medical Journal*, April 25, 1905) which are:

1. It is possible to functionate two opposing groups of muscles by a single nerve, which previously supplied one group only; or, to put in another way, it is possible to innervate fairly completely muscles with a much smaller number of motor horn cells than usually bring about this effect.

2. When the central end of one nerve is joined to the peripheral ends of two nerves there are many more fibres in the peripheral nerves than in the central nerves, so that the nerve fibres in the proximal trunk divide on going to the distal trunks.

3. In some cases at least some of the branches from one nerve fibre go to supply one set, and others the opposing set of muscles. This may prevent very delicate movement being restored.

4. After this form of suturing the arrange-

ment of the nerve fasciculi in the peripheral nerves is considerably altered. Though these experiments are incomplete, as they have not been performed on the human subject, I think sufficient has been done to justify the clinical trial of the method. It seems it would be likely to improve some of those distressing cases of infantile paralysis for which so little can at present be done. It may be applicable, too, in some injuries with loss of some of the length of the nerves, tumors of nerves, etc. (I would say that Spiller and Frazier have anticiated Kilvington nearly two years in applying these facts in a successful case reported before the Philadelphia Neurological Society, and of which I will speak later).

Cushing (*Annals of Surgery*, May, 1903) has reported favorable results in nerve anastomosis in facial paralysis, and in his report in commenting upon nerve anastomosis he says "In this form a given nerve with normal central connections is completely divided and its peripheral distribution abandoned as being of comparative unimportance. The central end of this nerve is then brought in its entirety into connection with the peripheral end of the nerve considered of greater importance, but whose central connections have been destroyed. (The accessorius was abandoned and its central end joined to the peripheral end of the facial nerve.) "On purely anatomical grounds, this operation is suited to those cases in which a lesion of the facial nerve has occurred proximal to the stylomastoid foramen; and fortunately, for operative repair, it is in this interosseous portion of its course that the nerve is most susceptible to injury whether from disease or traumatism."

Cushing further says: "The length of time which may elapse after the reception of an injury to a motor nerve and still allow of restoration of function through nerve anastomosis is necessarily uncertain and dependent entirely upon the condition in which the muscles have been kept by massage and electrical exercises. In case there has been complete atrophy of the muscles, so they no longer respond to galvanic stimulation, probably no hope can be entertained of their recovery. Consequently, should there be any doubt of the completeness and permanency of the lesion, as in the frequent paralyses following otitis media in children, or the severe types of Bell's palsy in the adult, the muscles should be kept in tone by daily galvanism for the number of months during which it may seem advisable to await a possible regeneration without operative intervention.

In cases of undoubted destructive lesions, as in a case reported by Faure, and the

writer's, the operation, of course, should be done at the earliest possible moment. The failure in the former case was undoubtedly largely due to the long interval, namely, eighteen months, which elapsed between the injury and the operation. An operation such as Bloodgood successfully performed in one instance by exposure and suture in the Fallopian canal of a nerve previously injured in a mastoid operation would, except under most favorable circumstances, be difficult in the extreme, and the procedure would hardly be applicable for the cases in which anastomosis is proposed.

"As far as the nerve itself is concerned, a reasonable delay in the operation need alter in no respect, the prognostic favorability of the case. Clinical experience as well as the researches of Howell, Bethe, Ballance and others, shows that there is some change, whether a true regeneration or not, which takes place in the peripheral portion of a divided nerve and puts it in a state of readiness most favorable for an early return of function after reunion by suture. It must be remembered, also that cases of suture of individual nerves have resulted in return of function, though the operation has been done some years after the original injury.

"It is naturally of some interest to consider in what way restoration of cortical control is brought about in transplantations of this kind. That undiminished strength and power co-ordination will return to a group of muscles after section and suture of their controlling nerve is a common observation. It is inconceivable, however, that the divided ends of each individual nerve fibre should once more unite in the process of regeneration by perfect coaptation. Supposedly each fibre is represented by a motor cell in the central nervous system so that it is presumable, under the readjustment of healing, that the individual cell make connection with new groups of muscle fibres. Under these circumstances there is on the part of the individual, during the slow period of motor return, an unconscious effort to co-ordinate the early movements, which by training leads to a perfect result. In case the nerve is grafted into an entirely different motor territory, the problem of functional restoration becomes much more complex, and the training of co-ordination would supposedly be correspondingly difficult. Return of well co-ordinated movement nevertheless seems experimentally to have been as rapid in cases of nerve anastomosis as in those of simple nerve division. Probably the age of the individual is a most important factor, and without doubt the younger the subject the more favorable is the prognosis after anastomosis, especially in case

muscles with such an elaborate co-ordinate action as those of facial expression are concerned. It is natural that especial difficulties would be encountered under such circumstances, owing to the complex emotional nature of facial movement."

Other peripheral nerves have been successfully crossed in surgical practice and one of the most interesting and instructive cases is that reported by Spiller and Young before the Philadelphia Neurological Society in February of 1903 (*Journal of Nervous and Mental Disease*, June, 1903). The case was one of anterior poliomyelitis of two years standing, in which the anterior tibial muscle alone was paralyzed.

The operation having been decided upon, the most important feature was the route to be selected. From a careful dissection personally made, Dr. Young decided that the lateral route was the better one, and accordingly, an incision 10 cm. in length was made downward from the head of the tibia in the long axis of the leg. The incision included the skin and superficial fascia. The deep fascia was divided upon a groove director, exposing the peroneal nerve. The nerve was followed down, and by separating the peroneus longus muscle three divisions were found: (1) The fasciculus of the nerves supplying the upper part of the anterior tibial muscle; (2) the anterior tibial nerve; (3) the musculo-cutaneous nerve, these divisions corresponding to those found in the cadaver. It was decided to take the upper division, of which there were four or five fasciculi, and perforating the external division, the musculo-cutaneous, the former were united to the outer side of the latter by fine catgut sutures.

Great care was taken not to injure the musculo-cutaneous nerve any more than necessary, and the fasciculi of the nerves which supply the anterior tibial muscle at its upper part were pushed through the incision in the external musculo-cutaneous nerve without any attempt being made to separate the nerve fibre from the sheath instruments were used, and the nerves were handled as little as possible.

The nerves which were anastomosed were divided as high up as possible, so that there would be no tension upon them. The deep fascia was not closed with sutures. The skin was united by interrupted sutures. Over the antiseptic dressing a plaster of Paris cast was applied to insure fixation of the limb."

It was my pleasure to see this case in Dr. Spiller's clinic last May, at which time improvement was decided, the child could walk almost in a normal manner and muscular power was good. This case suggests the pos-

sibility of other anastomoses being performed, and especially should we emphasize it as a promising operation in these unfortunate cases of anterior poliomyelitis where one muscle or group of muscles alone is involved.

Nerve anastomosis and transplantation is being advocated by Spiller and Frazier in cases of cerebral palsy. In an address (before the New York Neurological Society, and reported in the *Journal of Nervous and Mental Disease*, May, 1905) Spiller said: "The views here expressed are original with the authors, and if experience proves they are fallacious, they may nevertheless afford some suggestions for further investigation." The question he propounded was, Is it possible by surgical means to benefit in any way the patient afflicted with an incomplete hemiplegia?

It is beyond the most sanguine hope to give relief by surgical means in complete or almost complete hemiplegia, but Spiller's hope is based on the cases where partial return of power is in evidence. It is the experience of observers that usually the restoration of motion in hemiplegia is greater in the flexors in the upper limb and greater in the extensors in the lower limb, except those of the toes. An operation on the upper limb is not advised because the flexors of the fingers are more useful than the extensors. In some cases, however, this feature is of little value unless there is at least partial return of power in the antagonistic muscles, although this return need not be so great in the extensors as in the flexors. Spiller is inclined to believe that in a cases where the flexors alone regain power we might anastomose the central ends of some of the least important of the flexor nerves with peripheral ends of the extensor nerves, and in this way restore more nearly the normal relation between the flexor and extensor muscle."

We know from the experiments extending as far back to the work of Fleurens in 1824, that nerve crossing is both feasible and possible, and that even though the disused nerve may have been out of service for years, that regeneration of the united ends will occur when these nerves have not lost their connection with the spinal cells.

Another question propounded by Spiller is, Would impulses pass from the brain over the central motor tracts to the anastomosed fibres in such a way that useful return of function might be expected. His answer is, that such a restoration in part would at least occur. He says: "It is true that movements and not muscles are represented in the brain cortex, but it has been demonstrated that when the lesion is in the peripheral nerves and anastomosis of nerves has been performed, a new form of associated movements

may be learned by the brain. In this association there must be some equilibrium established between extensor and flexor muscles, in order to have return of power.

This work of Spiller and Frazier seeks to give aid in certain selected cases of cerebral hemiplegia, and it is in the field of the cerebral palsies of childhood where the most good is expected, also, some possible relief in athetosis. This new possibility of neurological surely commends itself in the cerebral palsies, but the selection of cases will demand careful oversight.

It was my pleasure to study under Osler and Wilmarth some years ago a series of cases (thirty-six) of cerebral palsies, all of which are reported in Osler's Monograph on this subject, and judging from the pathological findings in those cases, the number of children amenable to surgical treatment will necessarily be limited because of the unequal destruction of motor power, and thereby lessened possibility of establishing balance between flexion and extension of muscles.

VAGINAL TAMPON.

BYRON ROBINSON, M. D.

CHICAGO.

1. The composition of the vaginal tampon consists of a roll of medicated cotton (hen egg size) tied to a 12-inch string, placed in a solution of sixteen ounces of glycerine and two ounces of boracic acid.

2. The duration of preparation of vaginal tampon should be to lie in the boroglyceride solution forty-eight hours before using.

3. The utility of the vaginal tampon is: (a) it is hygroscopic; (b) it serves as a mechanical support; (c) it contracts tissue (muscle, elastic, connective); (d) it contracts vessels (lymphatic, vein and artery); (e) it hastens absorption of exudates; (f) it checks secretions; (g) it stimulates; (h) it curtails inflammation; (i) it drains the pelvic organs; (j) it cleanses; (k) it dissolves mucus, pus and leucocytes. The utility of a vaginal tampon depends on its composition, the quantity employed, the duration of its application, and on systematic method of use.

4. The methods of introduction consists in placing three to five vaginal tampons (with or better without the aid of a speculum) in the vaginal fornices in the direction of least resistance.

5. Disinfectants in a vaginal tampon is secondary to its other qualities, especially that of hygroscopy.

6. The object to accomplish by a vaginal tampon is: maximum hygroscopy, dissolving the elements in the discharge as mucus, pus, leucocytes, the mechanical removal of morbid secretions, accumulation and foreign bodies, diagnosis, mechanical support.

7. The diagnosis is aided by the use of a tampon by collecting and preserving the uterine discharge (as pus, blood, debris).

8. The requirements of a vaginal tampon are: (a) it should be non-irritating; (b) it should possess hygroscopic power; (c) it should be a solvent of discharges (mucus, pus, leucocytes, blood); (d) it should aid in the dissolving of the mechanical removal of morbid secretions, accumulations, and foreign bodies; (e) it should be aseptic (not necessarily antiseptic); (f) it should not indelibly stain the clothing (this is an objection to its use, e. g., ichthyol); (h) it should be reasonably economic.

9. The frequency of application of the boroglyceride vaginal tampon should be in general, twice weekly, more frequent employment may cause irritation.

10. The time to apply the tampon is at night during maximum anatomic and physiologic rest.

11. The duration the tampon may remain usefully in position is ten to twenty-four hours.

12. There are no special contraindications to the application of the vaginal tampon in pelvic disease.

13. The boroglyceride vaginal tampon may be beneficially applied in: (a) inflammatory pelvic disease (vaginitis, endometritis, myometritis, endosalpingitis, myo-salpingitis, pelvic peritonitis, proctitis, cystitis); (b) sacro-pubic hernia (a support for the uterus, cystocele and rectocele); (c) in genital ptosis it depletes the lymphatics and veins.

14. A vaginal tampon applied according to the above directions will prove to be of therapeutic value, in the treatment of pelvic disease, a prophylactic agent and a comfort to the patient.

DR. SEWALL considers the disappearance of the second cardiac sound at the apex as distinct indication for phlebotomy.

FOR a cough with fetid sputa give creosote, eucalyptol, thymol, cubebin, myrtol, menthol, copaiba, or turpentine.

DR. BUFFUM says he invariably cures scabies by washing the entire body with warm water containing oil of peppermint.

DR. TYSON finds Dover's powder useful remedy in the dose of $2\frac{1}{2}$ grains every two hours in acute bronchitis.

THE RELATION OF MAN TO NATURE (A STUDY PROMPTED BY "TESTIMONIES OF THE SEPULCHRES").

ALBERT S. ASHMEAD, M. D.

NEW YORK.

THIRTEENTH PAPER.*

As to Great Britain's part in the Japano-Russian war, there are two views which may be taken of this subject: The first is that the alliance of Great Britain (the British lion) with Buddhist Japan, has peculiar religious significance to the Japanese people, in consequence of their firm belief in a god-emperor—the Mikado as an avatar on earth, that is a descended or transmigrated diety into incarnate existence.

Gautama Sakya, the founder of the Buddhist faith, or Buddha, the "perfectly enlightened one," even in this present "enlightened age" of Meiji, is represented in the Buddhist tritich of Japan, that "three-picture carving on temple or household altars (the churches trinity), by a graven image, representing the Buddha, seated on the church's lotus flower, which, in its turn, is upheld by the real Avatar, of Sakya, the lion.

The lion, therefore, represents to the Japanese Buddhist, the animal into whose body Gautama Sakya, the beggar-man of Buddha river entered after death. On the other hand, the Mikado, a descended god, their real Avatar lives in a human body. Mutsuhito, the man, is really a god transmigrated into earth existence. He is higher in church authority, according to the Japanese, than is Gautama the beggar-man of Buddhist tradition, whose soul lives in the lion.

England, therefore, represents in her character as lion to the religious mind of Japan, support of the Mikado as avatar, or holy personality in the war with Christian Europe.

How peculiarly sinister, then, must be to the national spirit of Japan, call it Bushi-do ("Bushi" means warfare and "do" spirit), or what you will, that material and moral support which the alliance of the British lion affords to the Japanese in their present war with Russia.

In reality, it intensifies religious fanaticism of the nation to prosecute a "war of Asia" against all Europe.

A second view of this unseemly alliance is as follows:

All beggary in Japan is religious in character. The vagabonds in droves may be seen usually at the approaches of the Buddhist and Shinto shrines, on chief festival days.

* The first paper of this series appeared in the MEDICAL FORTNIGHTLY issue of April 25, 1905.

Here we meet the lame, the halt, the blind, many lepers and other deformed wretches of hideous men. These beggars accompany their prayers for charity, with a horribly doleful noise, which they make by striking little metal discs very similar to the cymbals represented in the hands of the paper Japanese soldiers pasted on the "monkey on a stick" toy, now being sold by the street fakirs in New York. Some Japanese mendicants have instead battle dores made of raw-hide, upon which they drum incessantly. One is inspired by all the din and racket they make to grant their request, and get away out of ear-shot of it as quickly as possible.

The beggars frequently take up their obstinate position on the canal bridges, or near running streams, where they can the more persistently importune the passerby to purchase their proferred live, slippery eels or other fish, which can readily slide from the purchaser's fingers, back to the water; and thus you are made to believe that you have performed some devout deed, by releasing them, as prescribed by Buddhist doctrine.

Among strolling beggars, we find the Shoshi, or lion's skin. This is the representation of a lion's head, shaggy and terrible looking, with a movable under-jaw, and a flowing mane, fitted on a capacious skirt, beneath which a real Japanese is concealed, who works it. This lion is always accompanied by two men, one performing on a small cylindrical drum and a triangle, the other one playing the flute, usually like a Malay, with his snuffling nose, instead of his mouth, and from which they extract excruciating "music."

The capacious mouth of the simulated lion is supposed to swallow evil spirits, who may be attracted by his gambolings and the accompanying noise.

This performance of the lion is often supplemented or varied by a performance of living Japanese monkeys.

Some strollers called Saru-mawashi, take about with them not only the lion's skin, but real monkeys, funny looking, little red-faced fellows. Saru-ya-machi, "monkey-shop street," in Tokio, is their headquarters.

It is related that many years ago, when the favorite horse of a famous "warrior" fell sick (even a plain fighting man, in Japan is called "warrior"), and was about to die, it was restored to health by a monkey, who possessed a curative charm.

Since this incident occurred, and until a few years ago it was customary to amuse the horses in the stables of the "higher classes," on Japanese New Year's day, by a visit of the performing "court monkeys," an example which was generally followed by all the nobility. These antics of Japanese court mon-

keys were enough to make even the sick horses laugh. This theatrical combination of performing court-monkeys and Japanese beggars, behind a lion's skin, is indeed very ancient practice in Japan. But a real lion's performance, shielded from European view only by a monkey's skin, is an innovation. Perhaps there is more or less measure of methodical substantiality in such alliance. For it may be founded in the Japanese mind, at least, on the monkey showman's tricks with the lion's skin. As for the lion, he may think he will be the gainer in the long run thereby, but he is being made a fool of by the wily monkey. His own skin would be far better protection for him against a bear, for instance, without all this deceit. For this is not a game of play, but one of war.

There are other special significations applying to this slippery matter, than that of the eel sold for a penny, and the beggarman's hand held out for pelf, which is Japan's itching palm, and not England's. This whole delectable performance goes on, in Asia, while drums are beat, triangles play, and the nose-flutes noisily blow a horrid tune, the better to drive away the "evil spirits" of a too curious European concert, which might intrude itself to scrutinize what really is going on behind it all, or to still further confuse and befuddle into too confiding friendship for the British lion, the real more natural feeling of the American eagle and French frog for the Russian bear.

Viewed from any and every standpoint this grotesque partnership of the monkey and the lion, is uncanny—and intended only to deceive the onlookers and get their money.

The strange alliance of the British lion with Japanese "wujin" (monkeys), as Li Hung Chang called them, however, does not astonish those who have more profoundly studied the Bushido of Japanese vagabondage, in the native language of "the country of brave warriors."

Draw from in front of the present political situation of East Asia the veil of opposition to Russia's advance towards attainment of a warm latitudinal open port and behold behind the monkey's skin of the play-man now exhibiting his deceitful tricks in China and Corea, while his two side partners (England and America) collect the coin for him, a religious dream of conquest over Christian Europe.

Pull aside that monkey's skin from the lion's alliance with Japan, and see plainly England's shameful anti-Russian Asiatic policy, grimly and nakedly exposed. The monkey's skin no more hides that lion's real purpose or play, than does the lion's skin hide

that of the monkey. None but a cowardly lion would thus array itself in a monkey's hide to thwart Russia obtaining what her manifest imperial destiny demands.

Together, for the historical moment, these two nations are drawn anti-Russian, and both strive, as pals, to limit Russia's Asiatic aims, by erecting across her natural pathway walls of political obstruction in India and in China. The lion in India prevents Russia's outlet that way to the Southern seas; the monkey in Corea, Manchuria, and even in Siberia, if she could do so with impunity, by England's and America's help, would forever cut off Russia's necessary juncture with the Pacific Ocean.

The whole startling spectacle of the lion hiding in cowardice behind a monkey's skin, is as inharmonious to our western ideas of civilized bravery, or the natural propriety of things, as is that of a Christian people, inciting a savage, pagan one, to garrote and rob a Christian neighbor. What she herself is afraid to be caught doing openly, she asks this pagan ally to do for her. Thus the conscience of each presumably is satisfied. Here we see the African in this Asiatic woodpile. His half-hidden personality and purpose, are well recognized by the Russians. So well known to those gentlemen of diplomacy is the true situation of these Asiatic world affairs, that I do not doubt, that not a beggar's paltry kopeck of Russian coin will ever be permitted to fall upon the outstretched Japanese beggar-palm as indemnity—not even if extended for it from behind both the eagle's and the lion's skin.

No monkey should ever be permitted to make a cat'spaw of America to draw from the Manchurian fire Russian chestnuts for Great Britain.

THE aromatic tincture of rhubarb in 5 to 10 drop doses three times a day is at times a very efficacious remedy for enuresis in children.

THE QUICK CURE TREATMENT FOR GONORRHEA.—Frederick A. Lyons reports that of the 400 cases treated for acute gonorrhea, 95 per cent were cured in six days, and of which about 80 per cent in twenty-four hours. He injects one dram and a half of a four per cent solution of silver nitrate. In most cases one injection was sufficient. It is painful at first, and after it the gonococci have disappeared. However, if they are still found the injection is repeated by a two per cent strength. The method depends for its effect on the fact that the gonococci at first lie on the superficial layer of the epithelial cells, where they multiply, destroying them and causing the cells to exfoliate.—Denver Medical Times.

THE MEDICAL FORTNIGHTLY

Issued Tenth and Twenty-Fifth of Every Month.

Under the Editorial Direction of

FRANK PARSONS NORBURY,
THOS. A. HOPKINS,
CARL E. BLACK.

With the following staff of Department Editors

O. E. LADEMANN, Internal Medicine.
JOHN McHALE DEAN, Surgery.
R. B. H. GRADWOHL, Pathology and Bacteriology.
W. H. VOGT, Obstetrics and Gynecology.
WALDEMAR FISCHER, Ophthalmology.
A. LEVY, Pediatrics.
W. T. HIRSCH, Therapeutics.
A. F. KOETTER, Otology.
HERMAN STOLTE, Laryngology and Rhinology.
F. P. NORBURY, Nervous and Mental Diseases.
T. A. HOPKINS, Genito-Urinary Diseases.
ROBERT H. DAVIS, Dermatology.

EDITORIAL

THE time of meeting of the Illinois State Medical Society has been changed to the original dates, May 15, 16 and 17, the regular time of the month which custom has established for years. We are glad to note this change and

hope that our readers will bear the dates in mind and govern themselves accordingly. It is to be a good meeting, and the official program, which appears in the Illinois State Medical Journal, is an excellent one and covers subjects now prominently before the medical world in the field of progressive medicine.

THE question of marriage of defectives promises to have some regulation if the New York bill, introduced in the legislature becomes a law. It is a long step in the right direction, and will serve to be the

opening edge for a more universal adoption of legislative restoration of marriage. The bill as introduced in the Senate is as follows:

“Marriages prohibited.—No insane, epileptic, imbecile or feeble-minded person shall be capable of contracting marriage and every marriage between persons either or both of whom are or have been insane, epileptic, imbecile or feeble-minded, is absolutely void. A marriage between persons either or both of whom have been insane, epileptic, imbecile or feeble-minded, shall not be deemed a violation of this section if at least thirty days prior to such marriage such person shall file in the office of the county clerk of the county where such person resides and of the county where such marriage takes place, a verified

certificate of two regularly licensed reputable physicians of this state that such person has been completely cured of such insanity, epilepsy, imbecility, or feeble-mindedness, and that there is not probability that any such persons will transmit any such defects or disabilities to the issue of such marriage. This act shall take effect immediately."

It is a wise law, but has one feature which doubtless will be abused, and that is the question of leaving to the decision of two physicians the recovery of persons once declared insane. This is a very grave responsibility, and one that gives opportunity for much discussion on both sides of the question. It opens up that interminable question of prognosis in mental disease, with all of its very varied phases and chances for misapplied superficial consideration of what constitutes unsoundness of mind. Even to physicians in daily contact with the problems of prognosis in mental disease, the granting of a certificate of a clear bill of mental health will be as perplexing question, while to the novice, who sees little of insanity and knows less, if he is honest, he will be confronted with one of its most difficult problems. The possibilities of calling remissions, recovery in maniac depressive forms of mental disease are very marked, and will be sure to create confusion, cause sad errors in judgment and add some sorrow to the marriage state, which under the authority of physician's certificate, promised to offer a happy future and freedom from the disasters which follow where insanity occurs in a family.

This feature, naturally, can not be overcome, as long as mind in its unfathomable currents, follows no law, understood and established by authenticated observation. We can only be guided by comparative observations, which in the hands of experienced alienists comes as near authority as we can expect, dealing as we do, with psycho-pathology, which is far from being an exact science. Again, mistakes will occur because of superficial observation and inquiry into the many questions of heredity, and it will take years to establish principles which may find application in the hands of the average practitioner.

We believe in the universal benefit to mankind which will accrue from this law, and we hope to see it created in other states of the Union. It should go further and make alcoholism a bar to marriage, for from it springs many of the ills and woes of insanity, epilepsy and feeble-mindedness found in the offspring. Alcoholism, as proven by the observations of Magnus Huss, is the real fountain head of the defectives, where mind

is especially affected and where nervous diseases of the degenerative types find their inception in hereditary conditions.

New York is taking the right stand on this question of marriage of defectives, and sooner or later, the law thus created will demonstrate its fitness and show the future possibilities of more stringent regulation. F. P. N.

THE meeting of the Missouri Association, to be held at Jefferson City, on the 15, 16, 17, bids fair to be one of the

The Meeting of the State Medical Association.

most notable in the history of the association. The Committee on Scientific Communications has devoted a high degree of energy and discrimination to insure a program which shall be scientifically entertaining and instructive—it is this which is the object of the meeting. Many matters of vital concern to the profession and its organization will come up for consideration and action, and will make a feature second only to the scientific program. Jefferson City being the capital city, is admirably prepared to care for the association; unlike most cities of its size, it has abundant hotel accommodations. The Missouri Pacific is planning a special train for the accommodation of the local delegation should its number demand it, as now seems probable. Regular trains will also make the trip one of comfort and celerity.

Present indications are that the St. Louis delegation will be exceptionally large. This, we understand, is also true of all sections, and we expect the meeting to be largely attended and rich in its benefits.

THE annual meeting of the American Association is fast approaching, and consulting

The Boston Meeting of the A.M.A.

route cards is the order of the day. The most favored route in this section includes the St. Lawrence, and is being offered by the Illinois Central and the Grand Trunk. This route gives us Chicago, Niagara Falls, Toronto, Montreal, by boat or rail down the St. Lawrence, thence to Boston and return by the same route, or on to New York and return from thence by the Lehigh Valley to Buffalo and home by the going route. Other routes are mentioned, but none offer so varied sightseeing, and so much comfort at so reasonable a figure. Ticket extension can be made at Boston to allow for considerable in the way of side trips.

The Boston meeting will be a great one from all view points. Boston should draw the largest attendance in the history of the association: she is the educational center of the country, and the days spent there must needs count for much in the way of unusual scientific opportunity. Aside from this these meetings give the chance to rub shoulders with one's fellows and the men who are doing things, and a man always returns aiming at being an abler doctor for the experience. It is to be hoped that the Missouri delegation will be of such size as is in keeping with the present spirit of medical progress in our State. One hundred men should go from St. Louis—there are more than that who cannot afford to miss this meeting. The editors of the FORTNIGHTLY will be pleased to make reservations for those of our readers who may wish to join the Illinois Central-Grand Trunk party, or this may be done through Mr. R. R. Churchill, C. P. A., 707 Olive street, St. Louis.

PROPOSED ITINERARY TO THE BOSTON MEETING OF THE A. M. A.

The trip by boat down the St. Lawrence through the "Thousand Islands" necessitates a planning of the railroad trip to meet the boat schedule. Parties will leave St. Louis and neighborhood over the Illinois Central to reach Chicago in the forenoon of June 1st. The itinerary from Chicago is best planned as follows:

Leave Polk St. Station, Chicago, June 1st, 3:00 p.m., special; arrive Niagara Falls Saturday, June 2d, 7:30 a.m.; leave Niagara Falls, Saturday, June 2d, 1:30 p.m.; arrive Toronto Saturday, June 2d, 4:30 p.m.; leave Toronto Saturday, June 2d, 9:00 p.m.; arrive Kingston June 2d, 3:00 a.m. Passengers to remain aboard sleeper until 5:30 a.m. Leave Kingston by boat June 3d, 6:00 a.m.; arrive Montreal, June 3d, 6:00 p.m.; leave Montreal 8:45 p.m.; arrive in Boston, June 4th, 7:00 a.m.

Meals to be served as follows: Supper, June 1st, Grand Trunk Ry. dining car a la carte. Breakfast and dinner, June 2d, Niagara Falls. Supper, June 2d, Toronto, Union Station. Breakfast and lunch aboard boat June 3d, table de hote. Supper, June 3d, Montreal. Breakfast, June 4th, Boston.

SNODGRAS LABORATORY.—The new pathological building to the City Hospital will be named Snodgras Laboratory in honor of the late Dr. Charles A. Snodgras, Health Commissioner, and will contain a memorial tablet. A resolution passed by the Board of Health lately ordered this action, and extended sympathy to the family of Dr. Snodgras.

SHORTLY after the scourge of earthquake and fire on the Pacific coast an appeal was made to the profession of our city for a fund to be distinctly devoted to the needs of our fellows on the coast who are in need in consequence of

The Local Medical Relief Fund.

this great calamity. At the time of writing the returns are far from complete, but a fund of better than \$500 has now been reported, with the following doctors as contributors:

A. C. Ambruster,	E. J. Martens,
C. M. Ament,	M. H. Mathews,
C. E. Anderson,	J. F. Mayes,
G. W. Bader,	M. H. McLean,
O. F. Ball,	E. E. R. Meng,
J. M. Ball,	G. M. D. Merwin,
H. W. Bartscher,	K. W. Millican,
E. F. Becker,	C. E. Moeller,
A. C. Bedal,	H. L. Nietart,
H. S. Brookes,	F. Neuhoft,
J. C. Buckwalter,	O. E. Ogle,
C. E. Burford,	Carl Orth,
L. Caplan,	J. M. Price,
J. H. Cawood,	F. Reder,
H. W. Clausen,	Frank Ring,
W. T. Coughlin,	P. H. Rothman,
G. C. Crandall,	H. Rothstein,
A. N. Curtis,	J. A. Sauls,
H. C. Dalton,	A. G. Schlossstein,
H. Ehrenfest,	C. W. Scott,
J. E. Faber,	Aug. Schmidt,
C. Fisch,	E. T. Senseny,
W. A. Fries,	C. Shattinger,
A. Fulton,	A. C. Shelman,
D. C. Gamble,	W. B. Shields,
G. Gellhorn,	P. Skrainka,
E. J. Goodwin,	W. T. Stege,
R. E. Graul,	G. Sluder,
John Green, Jr.,	Elsworth Smith,
E. C. Greer,	F. Spinzig,
J. A. Hardy,	I. G. W. Steedman,
G. W. Haverstick,	A. J. Steele,
Max Hempel,	B. E. Stockwell,
F. L. Henderson,	C. E. F. Streutker,
Phil Hoffman,	F. O. Strurhahn,
M. W. Hoge,	R. J. Terry,
George Homan,	P. Y. Tupper,
T. A. Hopkins,	H. A. Upshaw,
J. E. Jennings,	C. A. Ware,
H. M. Julian,	H. L. Wichmann,
J. H. Kern,	H. L. Wichmann,
F. Kolbenhoyer,	Jno. Zahorsky,
Otto Kollme,	C. R. Lightner,
E. Magoon,	T. B. Mansfield,

IN NEW YORK CITY, you should make your headquarters at Hotel Belleclaire, Broadway and 77th. Write your friends to meet you there after the meeting in Boston.

COMING MEETINGS.

American Medical Association, Boston, June 5-8.

American Climatological Association, Atlantic City, N.J., May 12-14.

American Association of Physicians, Washington, D.C., May 15-16.

Missouri State Medical Association, Jefferson City, May 15-16.

Iowa State Medical Society, Des Moines, May 16-18.

North Dakota State Medical Association, Fargo, May 16-17.

New Hampshire Medical Society, Concord, May 17-18.

American Association of Pathologists and Bacteriologists, Baltimore, May 18-19.

American Gynecological Society, Hot Springs, Va., May 22.

Illinois State Medical Society, Springfield, May 15-17. (Note change of time back to date originally planned).

Connecticut State Medical Society, New Haven, May 23-24.

Indiana State Medical Association, Winona Lake, May 23-25.

Michigan State Medical Society, Jackson, May 23-25.

Medical Society of State of North Carolina, Charlotte, May 29-31.

Rhode Island Medical Society, Providence, May 31.

American Dermatological Association, Cleveland, May 30-June 1.

American Pediatric Society, Atlantic City, May 30-June 1.

American Surgical Association, Cleveland, May 30-June 1.

American Laryngological Association, Niagara Falls, May 31-June 2.

American Association of Genito-Urinary Surgeons, New York, June 1-2.

American Academy of Medicine, Boston, June 2-4.

American Association of Life Insurance Examining Surgeons, Boston, June 4.

American Gastro-Enterological Association, Boston, June 4-5.

American Urological Association, Boston, June 4-5.

American Proctologic Society, Boston, June 5-6.

American Medico-Psychological Society, Boston, June 12-15.

Massachusetts Medical Society, Boston, June 12-13.

Maine Medical Association, Portland, June 13-15.

Minnesota State Medical Association, Minneapolis, June 20.

West Virginia State Medical Association, Webster Springs, June 20-22.

THE REVIEWER'S TABLE

Books, Reprints, and Instruments for this department, should be sent to the Editors, St. Louis.

MANUAL OF OPERATIVE SURGERY. By John Fairbairn Birnie, A. M., C. M. (Aberdeen), Professor Kansas State University, Kansas City. Second edition, revised and enlarged; with 567 illustrations, a number of which are printed in colors. Philadelphia: P. BLAKISTON'S SONS & CO., 1012 Walnut street.

This valuable little book on Surgery contains much useful first information. For the student it embraces everything necessary from minor details of sterilization to major work in gastric surgery. For the surgeon it is useful as a reference book, for in it we find many points of information that cannot be found in larger works. Its text is beautifully written, while its illustrations include works of experts. Of special importance is its article on plastic surgery. Here we find in a concise way the various incisions in the cure of facial deformities. The article on hernias is complete and instructing. Much value is drawn from the illustrations and teachings of the Mayos. The reviewer regards this work in a class of its own and would not feel content with his library if it were not included in it. The author deserves much praise for placing this edition before the surgical public, and the publishers should be given much credit for its neat compilation and publication.

J. M. D.

MEDICAL GUIDES AND MONOGRAPHS SERIES.—GOLDEN RULES OF SURGERY. Aphorisms, Observations and Reflections on the Science and Art of Surgery. Being a Guide for Surgeons and those who would become Surgeons. By Augustus Charles Bernays, A.M., M.D., Ddibg., M.R.C.S., Eng. St. Louis, Mo. St. Louis: The C. V. Mosby Medical Book Co. Price, \$2.50.

Aphorisms bright and well founded make up a large part of this book. These appeal to the reviewer as predigested and merit not only earnest study, but should be instilled or one may better say, injected into the intellect of the student in such a way as to be thoroughly absorbed and understood.

Aside from the real worth of this little book from a scientific standpoint the reviewer has experienced a pleasant evening in its review, for its lines flow along in an unusually classic manner, and can therefore be not only commended for its surgical teachings, but as well for its literary composition.

In the review of this work the writer can find much that is written "between the lines," and can comprehend how space and time have prevented the author from further developing many nuclear sparks of scientific surgery contained in its brief lines. This little volume born with the idea on the part of the author to impart to the embryonic surgeon many golden rules and ideas deduced from an experience of thirty years of success-

ful surgical practice, is an evidence of scientific unselfishness. It is a fact much to be deplored that this work and other similar ones were not written sooner, so as to enable those already engaged in surgical work to adopt its teachings. The author after much consideration and study coins the term "tissue unrest" as a substitute for inflammation. Inflammation as a term to designate the tissue unrest or resisting processes that have its cardinal symptoms heat, pain, redness and swelling, is according to the author obsolete, unreasonable and meaningless. Would that the author should have thus attacked the appendix "itis" as generally employed to denote various inflammations and relegated to the things that were but that are not at present.

The author has with much respect dedicated his work to Dr. Chas Mayo, and has conferred an honor upon him, to whom much honor and praise is rightfully due. D.

MAN AND HIS POISONS. A Physical Exposition of the Causes, Symptoms and Treatment of Self-Poisoning by Albert Abrams, A.M., M.D., Consulting Physician Denver National Hospital for Consumptives, The Mt. Zion and French Hospitals, San Francisco; President of the Emmanuel Sisterhood Polyclinic; formerly Professor of Pathology and Director of the Medical Clinic, Cooper Medical College, San Francisco. Illustrated. New York: E. B. Treat & Co. (Price \$1.50.)

This well known author, has by his original and painstaking clinical research, made for himself a permanent place in medical literature, and this work, adds to his deserving position as a scientist, clinician and teacher.

In this original review of man and his poisons he discusses the relations of poisons to disease, fatigue and general nervous instability. Of especial interest and value is the full discussion of perverted metabolism in its relations to disease, and by careful elaboration he has established a working basis, which is of great value to physicians in general practice, and of special value to neurologists and alienists. We have been personally very much interested in the author's original views regarding neurasthenia and to have the supplementary work to reinforce those views, is of value. We congratulate the author on his deserving success in this field of research.

F. P. N.

THE ALIENIST AND NEUROLOGIST for May contains, among many others, the following: Mixoscopic Adolescent Survivals in Art, Literature and Psuedo Ethics—Psychoencephalonasthenia or Cerebrasthenia Simplex and Psychoencephalonasthenia or Cerebrasthenia Insaniens—Erotic Symbolism—Railway Brain Strain and Brain Strain Regulation of Railways—Legal Aspects of Epilepsy—The Errors of Lombroso on Moral Insanity and Crime—Just a Sample—Congres Inter-

nationale Pour L'Assistance Des Alienes—A Milan Railway Inhumanity—The Hazing Neuropath and College Circumspection—Automobile Delusion—Le Progres Medical, Number Four, November 14, 1905—Psychopathy in the Sanctuary—The Surplus Funds in the Treasury of the A. M. A.—The McNaughton Case—Marriages by the Insane—Lay Evidence as to Insanity—Philanthropy and Applied Science—An Unjust Judgment Against a Physician—The Crimes of Fatal Euthanasia—Personal Commendation of a worthy Medical Insane Superintendent—Schoolboy Truant, but cannot Help it. Also a large number of Selections, Reviews, Book Notices, etc. Sample copy free on request. Subscription, \$5 per annum in advance. Address L. H. Hughes, manager, 3872 Washington Boulevard, St. Louis, Mo.

IN cough due to pregnancy Dr. Jewitt gives sedatives, such as a pill of palerinate of iron, quinine and zinc after meals; or can-nabis indica or bromides.

"REFLEX LIGHT FROM AFRICA," a discussion of the negro problem in America in the light of conditions in Africa, to appear in the May Century from the pen of Mr. Charles Francis Adams, promises stirring reading. It is known that Mr. Adams, after careful study of the black in Africa, believes that the negro is essentially and hopelessly inferior to the white man; that white and black cannot flourish together under the same system of government; and that the only solution for the United States of the problem of its relations with San Domingo, Cuba and the Philippines is to establish an up-to-date, dependent-people policy. Mr. Adams will set forth fully his position and the findings in Africa upon which he bases it—a position sure to excite much lively discussion.

THEORY AND PRACTICE.—Sydenham, some 250 years ago, recommended that young men desirous of studying medicine should lay aside their books and read Don Quixote! He had a profound contempt for the book learning of his times. While he knew the current theories, instead of trying to make them the basis of his practice he relied mainly upon observation of the natural processes of the body and their various normal and abnormal manifestations. His aim was to aid Nature and to avoid harming her. Instead, therefore, of the complex remedies and prescriptions of his times he gave simple remedies and carefully watched their actions. He studied his patients and left theorizing to others. And he was wonderfully successful. —American Journal of Clinical Medicine.

REPORTS ON PROGRESS

Comprising the Regular Contributions of the Fortnightly Department Staff.

SURGERY.

JOHN McHALE DEAN, M. D.

The Surgical Treatment of Cancer of the Stomach.—Wm. J. Mayo (Jour. A. M. A.) graphically describes the treatment of cancer of stomach. The author begins his article with truthful and bold statement that no authentic case of cancer of the stomach was ever cured by medicine. Would that this statement will open the eyes of the practitioners to this*conclusive fact, and convince them that cancer of the stomach is no medical disease, but a strictly surgical one. The results of the author's cases show a low mortality of 5%. When we understand that cancer of stomach means inevitable death, why not give the unfortunate patient a chance for life by operation? The article is illustrated by artistic, clear drawings that are so instructing that the valuable text is well understood. The patient operated on is given one-sixth of a grain of morphia hypodermically one-half hour before the ether anesthesia is begun. An incision is made in the median line between the umbilicus and ensiform cartilage small at first for exploratory purposes. If the case on account of extensive involvement is found inoperable the incision is closed, if not the incision is enlarged and the operation of resection begun. The stomach is drawn downwards and lesser curvature immobilized, while the liver by an assistant is elevated. The coronary artery at suitable point is doubly ligated, as well as the gastroepiploic dextra, gastroduodenal arteries. The gastrohepatic and gastrocolic omentum is ligated and incised. Clamps are applied to the duodenum and stomach, and the portion is removed. The gastric stump is closed with through and through catgut using the C. H. Mayo stitch while the outer coat is sutured with linen. The duodenal stump is either closed and on independent gastrojejunostomy performed, or if long enough is anastomosed with the stomach according to Kocher method. Saline solution, according to the Murphy method, is used per rectum, and one to one-half ounce of hot water allowed by stomach every hour after the sixteenth.

A Plea for the International Study of Carcinoma.—Nicholas Senn (Jour. A. M. A.) in a paper read before the International Medical Congress at Lisbon makes a plea for the international study of carcinoma. He avers that while much has been done in a curative

way much should be done in a preventive way. The etiology of carcinoma is still as unknown today, as it has ever been. The possible parasitic origin of carcinoma is not tenable according to Senn. He has inoculated himself with carcinoma with the same negative results that many have had previously. Autoinoculation has shown negative results as well. It is essentially a local disease of embryonic or postnatal epithelial causation. Heredity influence has been found in statistics to the extent of 12 to 33% till predisposition or aptitude for carcinoma may be transmitted from generation to generation as well as congenital deformities and physionomies have. It is most prevalent in the aged, although the author has seen carcinoma of the breast in a girl of 21 years and rectal carcinoma in a girl of 17 years. The reviewer has seen a case of carcinoma of the stomach in a girl of 23 years. Carcinomas grow more rapidly in the young than in the old. When it occurs in the youth the case more malignant than when it occurs in the aged. Racial and social influences seem to play some important role in its occurrence. The yellow and black races as well as the North American Indians seem little or not all affected with carcinoma. Habits, customs and manner of living predispose the more civilized nations to it. Strenuous life, worry and discontent often proedipose some to it. Climate and topography have their peculiarities about its prevalence. Rare in the extreme North and South; rare in Central Africa, South Sea islands, and Central America, and almost unknown in New Guinea; most frequent in temperate zones of Asia Europe and America. Alluvial soil favors it, chalky or lime soils exercise an opposite influence. The reviewer offers a query at this juncture that probably these localities where it is not prevalent it is not seen or recognized. If it is uncommon among the ignorant races could it not be possible that it has been less recognized and studied there? Meat diet some claim as favoring its development, but the author states it is very rare in the Arctics where the native live exclusively on a meat diet. The author offers a possible explanation for its rarity here on account of iodine contained in the food obtained from the sea animals. Habits of life is thought to predispose to it as we often blame the clay-pipe for sublabial carcinoma, yet in Turkey, Palestine, Algeria and Morocco, where tobacco is extensively used by the natives carcinoma of the lip or mouth is of rare occurrence.

That constant irritation produced by tobacco to the mucous membrane of mouth and tongue may predispose to it is plausible.

Trauma evidently plays an important part, and so important that it is often overlooked. Still trauma favors more the development of sarcoma than carcinoma. Often as the author states the trauma merely calls the physician's attention to its presence. Prolonged irritation from occupations, habits, malpositions, diseases of teeth and displaced organs form some factors in its development. Chronic inflammations or ulcerations have been repeatedly shown to antedate its occurrence. This has been so often demonstrated in regard to ulcer of the stomach developing malignancy or of an ovarian tumor becoming carcinomatous. Warts, "verruca senilis" have been shown to be the starting point of epitheliomas. Scar tissue and benign tumors also favor its development. The author concludes with a strong plea for the study of the cause of cancer. He urges the various international scientists to work unitedly in this direction, and to wander from the laboratory to study the etiology as well as the phases of the disease from the facts he has enunciated in his paper.

DERMATOLOGY.

ROBERT H. DAVIS, M. D.

A Note on the Treatment of Simple Warts by Internal Remedies.—Hall (British Journal of Dermatology, March, 1906) reports an interesting case of multiple warts cured by active daily purgation extending over two months and a half. This treatment has been brought forward before, some ascribing its virtues to epsom salts alone, but, in this case, sulphate of magnesium failed to properly move the bowels, and had no effect on the warts. Aloin and nux vom., in pill form, gave the necessary relief, and the warts disappeared in two months and a half. They had been present for some years, and were very numerous, 367 being on one hand and wrist only. (J. B. Cooper, in British Med. Jour., August 26, 1905, reports cures of multiple warts by lime water taken internally. He made the observation accidentally, on himself, while taking lime water for some digestive disturbance for a period of ten days. At the end of two weeks, a wart on his thumb, that had not yielded to local treatment, had entirely disappeared. He tested other cases with marked success. The time taken for the total disappearance of the wart varies from four days to six weeks. He advised the use of the remedy in wineglassful doses with a little milk added to be taken after the mid-day meal.—Per Review in Jour. Cutan. Diseases, Feb., 1906.)

Additional Observations on the Use of the Roentgen Rays in Dermatology.—Stelwagon (Jour. Cut. Dis., March, 1906) gives an interesting and instructive résumé of his broad experience with the X-ray, during the last three years, in the article referred to. His conclusions are, 1st, that a coil is more convenient and less liable to get out of order than a static machine, but is more dangerous in the hands of the inexperienced, "or the experienced either." 2d. That the vacuum of the tube should rarely exceed at the most, that equivalent to a three-inch spark, and between one and two is best. 3d. He advises changing the vacuum during a treatment, that is, he begins an exposure at a vacuum equal to about a one or two inch spark, and then disconnects the regulator, and allows the vacuum to slowly rise during the exposure. He believes that the disease, in its varying depth, can be better influenced in this manner. This applies more especially in the treatment of epithelioma, and in other growths of some depth or thickness. 4th. In the majority of cases, no improvement occurs until X-ray dermatitis (erythema, etc.) has been excited. Excepting epithelioma and similar diseases, however, it should not be purposely allowed to go beyond the slightest possible erythema. (By following this procedure, he occasionally causes a second degree burn, but finds the discomfort and disfigurement only temporary as a rule). Exceptionally, atrophic changes, such as thinning and wrinkling of the skin, atrophic lines, and spots follow careful, and even moderate use of the ray. This he has observed in a few cases of acne treated, and in only one was it at all marked, and, in that case, the changes are slowly becoming less marked. These changes did not develop until several months after the last cycle of exposures. 5th. As to time of exposure, and distance of the tube, he recommends, in the first several sances, except in the case of epithelioma and other malignant dermatoses, a distance of ten inches from the tube, and an exposure of three minutes. In epithelioma the duration of first exposures can be five minutes. In the milder dermatoses, six to eight inches in point of distance, and ten minutes exposure should rarely be exceeded, and these limits cautiously reached. In malignant dermatoses the limits can be more extreme, and much more boldly approached, "the tube in obstinate cases almost touching the surface, and the duration extended to fifteen or twenty minutes or longer." (It is almost needless to say that such treatments as these last should be given only by a skilled operator, that the patient should be under constant observation, and that the cases are desperate that require such

heroic measures.—Ed.) In changing from one tube to another, in the same case, duration should be lessened, and distance lengthened for the first two or three exposures, as different tubes may have different degrees of action. 6th. The usual measures for protecting the patient, and operator should be taken. 7th. As regards special diseases (a) epithelioma. "The best of all treatment is, first enucleation, either by excision, curette, or cauterization, as may seem most expedient in the individual case, and the immediate, supplementary action of the X-rays to the extent of probably five, or ten, or more, moderate exposures." He thinks this plan would give the most rapid results, give the least chance of recurrence, and be the least expensive, in the long run, to the patient. (Of these conclusions there appears to be little doubt but most patients dread an operation, and prefer the slower and less certain way.—Ed.) (b) lupus vulgaris. The action here is sometimes brilliant, but always slow, and cannot be predicted in a given case. (c) Lupus erythematosus. Here it is only occasionally satisfactory. (d) Acne. Although relapses after its use are less common than with other methods, his conclusions are that its use in acne should be extremely cautious, and that it is probably best reserved for the obstinate and extensive cases. The best and quickest results are attainable only after the production of a mild erythema, and the danger of subsequent atrophic changes, as already mentioned, should be borne in mind. Such changes may not occur for several months after exposures have been discontinued. It is not improbable, also, that a downy growth of hair is stimulated at times by the ray. So, in the obstinate cases, when the ray is employed, it should be used cautiously, and in conjunction with the other known methods of treatment. (e) Psoriasis. Here it should be used only for obstinate cases and large areas. (f) Eczema, only in obstinate, thickened areas, and rebellious, localized forms, as, for example, persistent eczema, of the hands, but here it should be employed with great caution. (g) In syphilis, he has had good results, but uses the ray cautiously, and in conjunction with the ordinary methods of treatment. (h) In keratosis of the palms, and localized hyperhidrosis he has obtained good results as have many others. (i) In ring worm of the scalp, the results were very favorable, but the pastilles of Sabouraud and Noiré, for measuring the dosage were unreliable. He concludes with the advice that in non-malignant dermatoses, except in extremely obstinate cases the ray should be used more as an adjunct than as the sole remedy. In the discussion

following, there was considerable disagreement over the statement that in acne an erythema must be produced in order to accomplish a good result. The majority were against the production of an erythema. Duhring had experienced alarming results in one case of psoriasis, when, without warning, a violent reaction, with suppuration extending down to the subcutaneous connective tissue. Montgomery and Bronson had had excellent sue, occurred in the patch under treatment. results in rosacea when the ray was used as an adjunct to the usual constitutional and local measures.

Two Cases of Multiple Tumors of the Skin in Negroes, Associated with Itching.—Schamberg and Hirschler (Jour. Cut. Dis., April, 1906) report two unique and interesting cases of a trouble reported in 1880 by Hardaway, with no cases reported since until now. The lesions consist of nodules, varying in size from a pea to a small finger nail. They are situated mostly on the extensor surfaces of the arms, on the dorsal surfaces of the hands and fingers, on the back and the extensor surfaces of the legs. The soles of the feet were free in each case, and the palms in one, the other exhibiting a single nodule on the thenar eminence. The nodules were sharply circumscribed, and showed no tendency to a coalescence. The skin between the lesions was normal in their cases, in Hardaway's, there were thickened, pigmented plaques in the intervening skin. Hardaway's case showed also lesions on the palms and soles. The nodules are not painful or tender, and are firm to the touch, most of them distinctly elevated, and covered with a somewhat horny epidermis. In each case, the nodules developed in the course of a few weeks, and have never disappeared, remaining, in one instance, more than fourteen years. No new ones appeared after the first crop, but some of the early ones grew slowly. The outbreak is attended by violent itching which is with difficulty controlled, and has been continuous since the onset, being much worse at sometimes, e.g., the menstrual period, than at others. In Hardaway's case, some of the nodules were confluent, and the trouble began in the form of "blisters," which were followed by the development of the tumors. In all the cases, the nodules recurred after extirpation. Pathologically there was a dilatation of the cutaneous blood vessels; cell infiltration chiefly in sharply circumscribed masses; proliferation of the fixed, connective tissue elements; and the formation of new, collagenous fibres. In the larger tumors, there was more pronounced vascular dilatation, and an enormous over-

growth of the horny layer of the epidermis. There were a great number of mast cells present, but careful search, in many sections, revealed no plasma cells. The cause of this very rare disorder is undetermined, and treatment is of little avail, the disease lasting many years with little or no change. In the two cases reported, the itching was confined to the tumors, while in Hardaway's case, it was general and the pigmented, thickened plaques, above mentioned, existed.

Pityriasis Rosea.—Montgomery (Jour. Cut. Dis., April, 1906) combats the common hypothesis that this disease is a cutaneous manifestation of a constitutional disturbance. The chief point against a constitutional cause is the "primitive patch." This appears a considerable time before the generalized eruption, and exactly as if it were the seat of first inoculation from which the virus afterwards spread. The primitive patch is better marked than the lesions of the subsequent rash, like the lesion of inoculation in many undoubtedly infectious diseases. Peripheral extension with central clearing of the lesions is also strongly suggestive of parasitism, but this alone is not conclusive. The results of local treatment also favor the parasitic view, for, while the disease is generally of somewhat long duration, its course can be materially shortened by appropriate external measures. It is very rare, however, to get an evidence even hinting at the transmission of the disease from person to person. Constitutional disturbance previous to or during the attack, on the other hand, is the exception. The differential diagnosis from seborrhea annulata is made with difficulty. There are the same light red rings with buff wrinkled centers in both affections. Usually, however, the rapid distribution of the rosy rash is sufficient to differentiate the affections. It is differentiated from measles by the severe constitutional symptoms, the rash on the face (an unusual situation for pityriasis rosea), the catarrhal affection of the nose, throat and bronchi, and the absence of the rings with the buff colored, wrinkled center in the latter disease. In German measles, also, there is an absence of the peculiar rings. The greatest liability of error lies in its differentiation from the roseola of syphilis, and especially if the patient has at the time a venereal sore. "The first search should be for the 'primitive patch,' and, if that cannot be found, then a careful examination should be made for the small, red rings with the skin, in the center, buff colored, and wrinkled. The wrinkling, otherwise unobservable in the early stages, can sometimes be demonstrated by placing the thumb and finger on opposite

sides of a patch, and then opening them so as to put the skin on the stretch." Sometimes, in syphilis, a red, ringed eruption with a desquamating center occurs, but it is a rare manifestation, and occurs much later than the roseola. Of course, as in several cases quoted, syphilis and pityriasis rosea may coexist. As to treatment, he recommends: The patient should be soaked daily, for half an hour, in a bath to which two or three teaspoonsful of Condly's fluid have been added, after which

R *Acidi salicylici*.....3 to 5
Vaseline.....100
is applied freely to the skin.

OTOLOGY.

ALBERT F. KOETTER, M. D.

The After-Treatment of the Radical Operation.—(Compilation of Dr. A. Sontag in *Internationales Centralblatt fuer Ohrenheilkunde*).—That the after-treatment of the radical operation is fully as important, and in many cases more difficult than the operation itself is a well known fact. To the physician, who, without technical training and large experience takes care of the after-treatment the results will not be flattering. The time for healing, depends on the position and the kind of case, varies from four weeks to several years. In order to have epidermization of the wound cavity take place as rapidly as possible different forms of plastic operation and transplantation are executed, these have been discussed in a former compilation by Hoelscher. Since this publication several new methods of plastic and transplantation have been published and these I will now discuss.

Alt reports a modified Koerner's plastic after formation of Koerner's flap, he places, from the upper posterior portion, a broad pedunculated flap into the wound cavity to cover the whole antrum and part of the cupola of the cochlea. The loss of substance is sewed up after making an incision to relieve tension. In order that no sinus or pocket may occur between the anterior wound margin and the pedunculated flap, a strip 1 mm. wide excised from the cutis of the pedunculated flap corresponding to the anterior wound margin and to this place the anterior margin is sewed. The complete epidermization should occur in from seven to eight weeks. The same plastic was described by Berens before the New York Otological Society.

Delsaux resects the posterior membranous wall of the canal after a horizontal incision in the median line he separates each flap by

two new incisions which unite at the extreme end of the first incision and diverge to the interior. The whole superior and posterior wall of the membranous canal, including the adjoining part of the concha are removed by Caboche, meaning thereby to simplify the operation and produce a large opening, also avoiding the curling up of the flap in the powder treatment which follows.

Luc modifies Siebermann's Y plastic, by which the crus of the Y in the concha are placed in a posterior superior and posterior inferior position in such a way that he executes one incision directly to the back and the other to the lower portion. Moreover he does not incise the posterior wall, but the posterior superior wall of the external canal. He has never observed perichondritis following and the wide opening does not disfigure.

According to Botey none of the prevailing methods can with certainty prevent a narrowing of the canal, Siebermann's plastic which is the safest is unsatisfactory from a cosmetic standpoint. He incises from above over the whole length of the membranous canal to the upper border of the tragus and the root of the helix in the concha. As the tragus completely covers the large opening, large enough to allow the thumb to enter, the cosmetic results is a good one.

A combined plastic has been used by Bruehl in fifty cases with good results. After executing a Pance T incision in the membranous canal wall a short Koerner flap is formed by two parallel incisions in the cavum concha at the upper and lower end of the vertical transverse incision. This flap can, if desired, be enlarged to the cavum concha. Thus there are three flaps which can be made thinner by removal of epidermis from their posterior wall, so that they fit snugly to the walls of the cavity. In the almost constantly used primary suture, the short Koerner flap is seized with a thread and drawn to the back until its free margin hugs closely to the bony wall. A disfigurement of the auricle is out of question.

Passow forms a short Korener flap, as described above, this he fixes posteriorly by two sutures. Then instead of a T incision he splits the external auditory canal posterior inferior entirely, but on the upper margin makes only a short incision. In this way he gets a very movable flap which fits smoothly above.

A diametrically opposite view is taken by Chevalier Jackson. This author on account of an occasionally occurring perichondritis and an ofttime remaining deformity of the external canal opening does not touch either the external canal or the concha. He makes the first incision one centimeter wide and

sometimes more posterior from the insertion of the auricle. From this skin between the incision and the line of insertion he forms, after the operation, by an incision in the line of insertion of the auricle, one or two thick flaps which are tamponed tightly to the bone and through their bulkiness fill out the cavity. The retro-auricular opening is allowed to close when the entire cavity of the antrum is filled with a thick cushion of solid fibrinous tissue that every cavity with exception of the exposed tympanic cavity is obliterated.

For epidermis transplantation after the radical operation Politzer has for some time been using glass tubes which terminate at one end in a perforated bullet. For the transplantation which should be done in six to twenty days after the operation only such cases are applicable where plastic flaps have healed and the retro-auricular wound has been closed. There must be only slight secretion and the walls must be covered with granulation. Several hours before the transplantation the cavity is cleansed with sterile water and 6% H_2O_2 , and then filled with sterile gauze. The Thiersch flaps are then placed on the glass bullet with the epidermis surface to the glass and by means of a bulb and rubber tube are blown on the intended surface. The flaps are held in place by small cotton sterile pads. After four days, when the bandage is removed, the flaps will be found healed in situ.

The primary closure of the retro-auricular wound by means of a suture is done by most operators if no complications exist. Heine treats the wound cavity for two or three weeks through the retro-auricular opening and then allows it to gradually close. The time for the first change of bandage varies according to the after treatment and the plastic. Heath leaves the first dressing one day, then changes daily.

Riechel removes first bandage after three days, and then tries transplantation with small flaps.

Eeman, Moure, Delsaux, Lermoyez and Caboche allow first bandage to remain four days, most authors remove it in from five to eight days. Eschweiler after fourteen days. Mahu favors chloroform narcosis for the first dressing. How often the dressing is changed afterwards depends on condition and the amount of secretion from the wound. Often times it is necessary to change every day. The too frequent change of dressing is deprecated by Krebs as the bandages after a radical operation do not show the ideal of a protective treatment of a wound, and the principle unanimously advocated by surgeons that

a wound should be disturbed as little as possible should be followed.

General unanimity exists in after treatment as to practice of careful asepsis to the last dressing and the avoidance of unnecessary probing and handling of and in the wound. Also the danger of too tight a tampon for as formerly this was done to avoid luxuriant granulations it has since been demonstrated that this caused prolific granulations. The strip of gauze is introduced loosely without pressure. Mahu introduces gauze strips in shape of barillet and changes the position daily so that pressure is not always at the same place. Zur Muehlen stops use of tampon after eighth day and syringes the ear daily with warm water; if fetid secretion he uses 10% naphthalin solution, as soon as he notices a tendency to stenosis he returns to the use of the tampon.

Botey after the operation and plastic lays a light flattened perforated metal tube 15-22 mm. broad and 16-22 mm. long into the cavity, and allowed to remain for five to six weeks, until the epidermization of the canal is completed. In this tube a gauze strip is placed which can be changed as required without causing patient any pain. For the first dressing iodoform gauze is used, and later on sterile gauze.

Eschweiler, Werner, Siebermann and Schiebe have had excellent results with vioform gauze for dressing. The vioform gauze is odorless and in the after treatment it shows deodorizing qualities and a tendency to limit granulations. Its advantages over iodoform gauze is that it can be easily sterilized, and the dressings need not be changed so often. Splendid results are reported by Heine in the use of iodoform gauze (paraiodo-anisol) its action limits secretion and granulations. The latter is so strong that if isoform gauze is used at the first dressing, granulations will be entirely absent. It is therefore necessary that the first few dressings be made with iodoform gauze until a thin cushion of granulation cover all the parts equally, then use isoform gauze for tampon. The secretion remains scant and is never fetid where this gauze used. The gauze should never be used stronger than a 3%, otherwise it may act as a caustic.

Eeman discards the tampon after the fifth day and fills wound cavity with powdered boric acid, the quantity of which he diminishes as the secretion decreases, so that finally he only dusts those places which have not epidermized. The change of dressing is painless and the duration of healing is shortened. Lesmoyez, Delsaux, Caboche and Boenninghaus also speak very highly of this method. Lafite-Dupont dusts with boric acid

after the surface of the wound cavity has become covered with granulations as the dusting of the powder directly on the exposed bone surface is very painful.

Warnecke and Lautenschläger use warm air as a remedy to control the granulation and accelerate the epidermization. In cases where local conditions prevent or retard epidermization Bondy used picric acid in a concentrated ethereal solution (1.0:10.0), and recommends it on account of the good results he obtained. After careful cleansing and drying of the wound surfaces he touches the whole surface as well as the margin of the epidermis with picric ether. The pain caused by the ether is at first very intense, but disappears after the ether has evaporated. The evaporation is accelerated by inflation of air. This treatment was repeated every second day on the intervening days the wound cavity was cleansed and dusted with boric acid. Tampons were not used. The first and most striking action of the picric treatment is the decrease in the secretion, then the formation of the granulations and the rapid pushing forward of the epidermis. The time in which this process takes place is often very short, in one case it was six days.

A short time ago Mahu, who had followed the treatment of Eeman, insufflation of boric acid, described a new and much more simple method which consisted in doing nothing during the after treatment, either by tampon or insufflation. The motive for another form of treatment was the oftentimes unbearable pain which the patients complained of in the early part of the treatment ceased by boric acid insufflation. Although he reports only for cases he is very enthusiastic over the results. When changing the dressing every second day if abundant discharge he simply wipes out wound cavity and dries it only occasionally has it been necessary to curette some granulations at the end of the auditory canal. A gauze drain only reaches to the end of the membranous canal (Maher resects the posterior portion of the membranous canal in the operation, in the cavity itself every contact of the gauze with the wound surface should be avoided. Later on when the epidermis covers the greater part of the cavity, insufflation of boric acid may be done, at this stage it is not painful, and often hastens the epidermization. The above described method is only used in cases in cholesteatoma it is the endeavor to maintain the condition of the cavity, as it was established at the operation.

As a remedy to limit the secretion and granulations Heath uses absolute alcohol in form of instillations; Heine introduces gauze strip saturated in alcohol. The gran-

ulations usually shrink under this process, but the procedure is very painful.

Of the caustics recommended are: Silver nitrate, lactic acid, chromic acid, galvano-cautery and as a last resort the curette. Grunert and Heine prefer the lactic acid, twenty to thirty per cent solution rubbed in thoroughly at the spot, silver nitrate in 50% solution and in substance fused to a probe. Through rough and incorrect use of caustics the nourishing soft parts are often destroyed, especially with chromic acid which is deliquescent and causes deep-seated corrosion, often bone caries, most often at the median wall of tympanic cavity.

Ferren in a patient in whom after a radical operation the discharge would not cease introduced into the ostium tympanale of the tube a platinum wire heated to red glow. The discharge ceased and has not returned at the present time.

The fresh newly formed epidermis is guarded from maceration by applying a zinc paste on the margin of the epidermis. Dermatitis and desquamation of the epidermal layer of the bone cavity may be treated by pencilling with a 2% argent solution.

The duration of the after treatment to the time of healing depends on the nature of the case; it varies from four to five weeks to years. The average duration is given by most authors as from eight to twelve weeks.

TAKE care of your enemies, and your friends will take care of themselves.

THE "New Lexington," Boston, will be found a pleasant stopping place for delegates to the American Medical Association in June. Make reservation early. See announcement in this issue.

AT ATLANTIC CITY, the "Chalfonte" is easily the most popular hotel on the beach. If you want to secure special rates after the Boston meeting, write the editor of the FORTNIGHTLY.

THE enterprise and courage of the members of the San Francisco drug trade were clearly exemplified during the recent disaster. Before the fire was extinguished they placed large orders with the manufacturing chemists. One house ordered 30,000 pounds of antiphlogistine, and altogether over 100,000 pounds were shipped to the coast upon order within a week. On a steamer from New York, running up the California coast at the time of the earthquake, were 35,000 pounds of antiphlogistine, and upon orders from the home office, the emergency hospitals were liberally supplied free of charge.

FAVORITE PRESCRIPTIONS

PALPITATION.—In the mildly neurotic heart Satterthwaite prefers to use camphor monobromate, especially in the fluttering heart of emotional women. It is also useful in nocturnal palpitation, such as is so frequently seen in diabetes and in aortic disease. —Denver Med. Times.

FOR MALARIA.—

R Tincture iodine comp. 2 drs.

Fowler's solution. 1 dr.

M. Sig.: Dose ten or fifteen drops after each meal.

R Tinct. iodine comp. 3 drs.

Carbolic acid. 1 dr.

M. Sig.: Dose four drops, every four hours, in water.—J. A. Burnett, M.D., in Wis. Med. Rec.

VAGINITIS.—The following combination is recommended by the Medical Review of Reviews in the treatment of vaginitis:

R Pulv. aluminis.

Zinci sulphitis.

Sodii biberatis.

Acidi carbolic. aa 3j

Aquae. 3vj

M. Sig: A teaspoonful to a quart of lukewarm water, as a vaginal douche, twice daily.

NASAL POLYPI.—They nearly always start from the region of the middle turbinate, and are favored by hydrorrhea and septal deflections. The patient complains of attacks of sneezing and of tinnitus and stenosis, varying much with changes in the weather; also a sense of fullness in the upper portion of the nasal cavity, discomfort being most marked at night. There is a constant, profuse, watery or mucous discharge. The voice is dead and peculiar, with a faint nasal tone. The ridge of the nose is thickened, as in chronic stenosis generally. Inspection under cocaine with a good light shows glistening, bluish-gray moist growths, resilient to the probe, in the middle or upper cavity. Polypi may simulate empyema of the antrum in the electric transillumination test. To remove these growths Coakley employs the cold wire snare, after spraying with cocaine and dilating nostril widely. He makes the loop vertical and but little larger than the polyp, pressing the loop well up to attachment of growth before cutting it off. If the hemorrhage is sharp, place a small pledget of cotton against site of stump. Spray nose night and morning subsequently with Seiler's or normal saline solution. When polypi return, if recurrence is not due to disease of accessory sinuses, curette the region of origin quite thoroughly under cocaine or general anesthesia.—Denver Med. Times.

THE MEDICAL FORTNIGHTLY

A Cosmopolitan Biweekly for the General Practitioner

The Medical Fortnightly is devoted to the progress of the Practice and Science of Medicine and Surgery. Its aim is to present topics of interest and importance to physicians, and to this end, in addition to a well-selected corps of Department Editors, it has secured correspondents in the leading medical centers of Europe and America. Contributions of a scientific nature, and original in character, solicited. News of Societies, and of interesting medical topics, cordially invited.

Advertising forms close on the first and fifteenth of each month. Time should be allowed to submit proof for correction. Advertising rates on application.

Remittances and business communications should be addressed to the Fortnightly Press Co.

Subscription, \$2.00 a year, in advance, including postage to any part of the United States, Mexico and Canada. Postage to foreign countries in the Universal Postal Union, including Newfoundland, \$1.00 a year additional. Entered at the St. Joseph post-office as second-class matter.

The Medical Fortnightly will not be discontinued at expiration of subscription, as many of our readers prefer not to have their files broken on account of failure to remit. Unless we receive a distinct request to discontinue, and payment for all arrearages, this magazine will not be discontinued.

Subscriptions may begin at any time; volumes end with June and December.

Contributors should understand that corrected typewritten copy is essential to clear proof and prompt publication, and is much more satisfactory than manuscript. Original articles should be as condensed as justice to the subject will allow.

Editorial offices in St. Louis, Jacksonville, and St. Joseph, where specimen copies may be obtained, and subscriptions will be received.

Contributions and books for review should be addressed to the editors, 319 and 320 Century Building, St. Louis, Mo.

MEDICAL MISCELLANY

TWO UNUSUAL EPILEPTIC HISTORIES.—Smith Ely Jelliffe's first patient was a girl ten years of age, who until she was eighteen months old was perfectly well and normal. At this time otitis media developed, a moderate purulent discharge from the ear beginning on the second day. In a few days, the pain and local symptoms subsiding, the child was taken out of bed. It was found at this time that she was paralyzed on the left side and epileptic phenomena developed. The general condition of this child has greatly improved, including a gain in weight of twenty-five pounds. She is mentally changed, being as bright as the average child of her age. About a year and a half ago examination by the writer showed a small cicatrix on the right drum membrane. He thinks it not improbable that the otitis was followed by the development of an abscess, the paralysis and epileptic phenomena being due to pressure or partial destruction. He believes also that the recovery, if such it proves to be, may be attributed to the rupture of a secondary cyst and the relief of pressure. The second patient had always had fair general health until an attack of santonin poisoning. This accident offers a plausible explanation of the convulsive seizures, the amblyopia, and the nephritis which followed. The author states that the relation of santonin to naphthalene suggests the type of pathological change that occurred in this child's nervous tissues. He has little doubt that the

seizures from which this child suffered were distinctly epileptic.—*Med. Rec.*, March 31, 1906.

COLOMBIA'S INDUSTRIAL OPPORTUNITIES.—Colombia's present attitude toward Americans is dignified and commendatory. Though scarcely meriting favorable treatment, they are preferred to other foreigners in the republic, and they obtain nearly all the concessions granted to aliens. They are as welcome in Colombia as they were before the secession of Panama, and it is chiefly they who have charge of constructive work throughout the country. Two railroads of importance are being constructed by Americans. One of these, from Buenaventura, on the Pacific, to Bogota, by way of Cali, will no doubt result in a thorough develop-travel between the capital and the ocean from twelve days to forty-eight hours; the other, from the Gulf of Darien to Medellin, the second city in the republic, will place rich region in touch with commerce. The country to be traversed by the roads is elevated, and suitable for an industrial population, insuring colonization, which must start from the head waters of rivers. Employment is thereby given to twenty thousand men. As a result of all this constructive work, gold fields will be developed. Once made accessible, the Choco region will be filled with prospectors. With the enactment of laws, similar to those prevailing in the Western American States, a great increase in the mining population will soon be brought about, and even a mining boom, "on the American plan," must occur. Important discoveries of gold will certainly be made. The purpose of President Reyes is to develop the country, and he realizes that mines are the best agents for the introduction of immigration on a large scale. The mining laws of Colombia, already the most liberal in South America, will be still further improved. Very probably the coinage tax will be abolished. The export tax on bar gold has been abolished, and before long mining will be made an untaxed industry. For "The New Era in Colombia," by Francis P. Savinien, in the *American Monthly Review of Reviews* for May.

GIVE growing children plenty of the most nutritious food at regular intervals and allow them plenty of time for eating, teaching them to chew each mouthful thoroughly before swallowing.

THESE are the days when the skin needs especial care and attention. The high winds, together with the dust and dirt raised by them, are more severe on the skin than the coldest atmosphere.